L Number	Hits	Search Text	DB	Time stamp
1	171	("560/330").CCLS.	USPAT;	2002/06/12 10:38
			EPO; JPO;	
			DERWENT	
2	60	("560/338").CCLS.	USPAT;	2002/06/12 10:38
_			EPO; JPO;	
			DERWENT	
3	218	("560/347").CCLS.	USPAT;	2002/06/12 10:38
١	210	(300/31/ / 188851	EPO; JPO;	
			DERWENT	
4	744459	bromine or Br	USPAT;	2002/06/12 10:38
4	/44433	Diomine of Bi	EPO; JPO;	2002,00,12 10:30
			DERWENT	
_				2002/06/12 10 20
6	94111	iodine	USPAT;	2002/06/12 10:39
			EPO; JPO;	
			DERWENT	
8	411303	halogen	USPAT;	2002/06/12 10:39
			EPO; JPO;	
			DERWENT	İ
9	22303	phosgene	USPAT;	2002/06/12 10:39
			EPO; JPO;	
			DERWENT	
10	785655	(bromine or Br) or iodine	USPAT;	2002/06/12 10:39
		, , , , , , , , , , , , , , , , , , , ,	EPO; JPO;	
			DERWENT	
12	11077	halogen and phosgene	USPAT;	2002/06/12 10:39
12	11077	naiogen and phobyene	EPO; JPO;	2002, 00, 12 20133
			DERWENT	
13	18	(halogen and phosgene) and	USPAT;	2002/06/12 10:39
13	10	("560/330").CCLS.)	EPO; JPO;	2002/00/12 10.33
		(("560/330").CCLS.)	DERWENT	
_	7	(/U560/247U) GGIG \ and (hnoming on Dn)		2002/06/12 10:39
5	,	(("560/347").CCLS.) and (bromine or Br)	USPAT;	2002/06/12 10:39
			EPO; JPO;	
			DERWENT	
7	5	(("560/347").CCLS.) and iodine	USPAT;	2002/06/12 10:39
			EPO; JPO;	
			DERWENT	
11	21	(("560/330").CCLS.) and ((bromine or Br) or	USPAT;	2002/06/12 10:39
		iodine)	EPO; JPO;	6-
			DERWENT	
14	14	((halogen and phosgene) and	USPAT;	2002/06/12 10:39
		(("560/330").CCLS.)) not	EPO; JPO;	
		((("560/330").CCLS.) and ((bromine or Br) or	DERWENT	
		iodine))		
15	2	4845283.pn.	USPAT;	2002/06/12 11:57
	-		EPO; JPO;	, ,
			DERWENT	
16	3	4193932.pn.	USPAT;	2002/06/12 11:02
10	3	41,3,3,2. Pii.	EPO; JPO;	2002/00/12 11.02
l l				

	Туре	L #	Hits	Search Text	DBs	Time St	qmp	Comments	Error	Definition
1	IS&R	L1	171	("560/330").CCLS.	USPAT; EPO; JPO; DERWE NT	2002/06 10:38	/12			
2	IS&R	L2	60	("560/338").CCLS.	USPAT; EPO; JPO; DERWE	2002/06 10:38	/12			
3	IS&R	L3	218	("560/347").CCLS.		2002/06 10:38	/12			
4	BRS	L4	74445 9	bromine or Br	USPAT; EPO; JPO; DERWE NT	2002/06 10:38	/12			
5	BRS	L6	94111	iodine		2002/06 10:39	/12			
6	BRS	L8	41130 3	halogen	USPAT; EPO; JPO; DERWE NT	2002/06 10:39	/12			
7	BRS	L9	22303	phosgene	USPAT; ; EPO; JPO; DERWE NT	2002/06, 10:39	/12			
8	BRS	L10	78565 5	(bromine or Br) or iodine	USPAT; ; EPO; JPO; DERWE NT	2002/06, 10:39	/12			
9	BRS	L12	11077	halogen and phosgene	USPAT; ; EPO; JPO; DERWE NT	2002/06, 10:39	/12			
10	BRS	L13	18	(halogen and phosgene) and (("560/330").CCLS.)	USPAT; ; EPO; JPO; DERWE NT	2002/06, 10:39	/12			

	Er
1	0
2	0
3	0
4	0
5	0
6	0
7	0
8	0
9	0
10	0

06/12/2002, EAST Version: 1.02.0008

			1		, 				
	Туре	L#	Hits	Search Text	DBs	Time Stamp	Comments	Error	Definition
11	BRS	L5	7	(("560/347").CCLS.) and (bromine or Br)		2002/06/12 10:39			
12	BRS	L7	5	(("560/347").CCLS.) and iodine		2002/06/12 10:39			
13	BRS	L11	21	(("560/330").CCLS.) and ((bromine or Br) or iodine)	USPAT; EPO; JPO; DERWE NT	2002/06/12 10:39			
14	BRS	L14	14	((halogen and phosgene) and (("560/330").CCLS.)) not ((("560/330").CCLS.) and ((bromine or Br) or iodine))		2002/06/12 10:39			
15	BRS	L15	2	4845283.pn.		2002/06/12 11:57			
16	BRS	L16	3	4193932.pn.		2002/06/12 11:02			

	Err
11	0
12	0
13	0
14	0
15	0
16	0

06/12/2002, EAST Version: 1.02.0008

Welcome to STN International! Enter x:x

LOGINID:ssspta1623paz

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

```
* * * * * * * *
                     Welcome to STN International
NEWS
                 Web Page URLs for STN Seminar Schedule - N. America
NEWS
          Jan 25
                 BLAST(R) searching in REGISTRY available in STN on the Web
NEWS
          Jan 29
                 FSTA has been reloaded and moves to weekly updates
NEWS
         Feb 01
                 DKILIT now produced by FIZ Karlsruhe and has a new update
                 frequency
NEWS
         Feb 19
                 Access via Tymnet and SprintNet Eliminated Effective 3/31/02
NEWS
         Mar 08
                 Gene Names now available in BIOSIS
NEWS
         Mar 22
                 TOXLIT no longer available
NEWS
      8
         Mar 22
                 TRCTHERMO no longer available
NEWS 9
         Mar 28
                 US Provisional Priorities searched with P in CA/CAplus
                 and USPATFULL
NEWS 10 Mar 28
                 LIPINSKI/CALC added for property searching in REGISTRY
NEWS 11 Apr 02 PAPERCHEM no longer available on STN. Use PAPERCHEM2
instead.
                 "Ask CAS" for self-help around the clock
NEWS 12 Apr.08
                 BEILSTEIN: Reload and Implementation of a New Subject Area
NEWS 13 Apr 09
NEWS 14 Apr 09
                 ZDB will be removed from STN
NEWS 15 Apr 19 US Patent Applications available in IFICDB, IFIPAT, and
IFIUDB
NEWS 16 Apr 22 Records from IP.com available in CAPLUS, HCAPLUS, and
ZCAPLUS
NEWS 17 Apr 22 BIOSIS Gene Names now available in TOXCENTER
NEWS 18 Apr 22 Federal Research in Progress (FEDRIP) now available
NEWS 19
         Jun 03 New e-mail delivery for search results now available
NEWS 20
         Jun 10 MEDLINE Reload
NEWS 21
         Jun 10 PCTFULL has been reloaded
NEWS EXPRESS February 1 CURRENT WINDOWS VERSION IS V6.0d,
              CURRENT MACINTOSH VERSION IS V6.0a(ENG) AND V6.0Ja(JP),
              AND CURRENT DISCOVER FILE IS DATED 05 FEBRUARY 2002
NEWS HOURS
              STN Operating Hours Plus Help Desk Availability
NEWS INTER
              General Internet Information
NEWS LOGIN
              Welcome Banner and News Items
NEWS PHONE
              Direct Dial and Telecommunication Network Access to STN
NEWS WWW
              CAS World Wide Web Site (general information)
```

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FILE 'HOME' ENTERED AT 09:05:07 ON 12 JUN 2002

=> file reg
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'REGISTRY' ENTERED AT 09:05:21 ON 12 JUN 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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STRUCTURE FILE UPDATES: 10 JUN 2002 HIGHEST RN 428438-29-3 DICTIONARY FILE UPDATES: 10 JUN 2002 HIGHEST RN 428438-29-3

TSCA INFORMATION NOW CURRENT THROUGH January 7, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:

http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

```
=> e phosgene/cn
                   PHOSGARD XC 2000L/CN
E1
             1
E2
             1
                   PHOSGEN/CN
E3
             1 --> PHOSGENE/CN
                   PHOSGENE (2,5-DICHLOROPHENYL) HYDRAZONE/CN
E4
             1
                   PHOSGENE DIMER/CN
E5
             1
                   PHOSGENE DIPHENYL ACETAL/CN
E6
             1
                   PHOSGENE, AZINE/CN
E7
             1
E8
             1
                   PHOSGENE, AZINE WITH 1-NAPHTHYL KETONE/CN
E9
                   PHOSGENE, AZINE WITH 1-NAPHTHYL PHENYL KETONE/CN
             1
                   PHOSGENE, AZINE WITH BENZOYL CHLORIDE/CN
            1
E10
E11
            1
                   PHOSGENE, AZINE WITH P-BROMOBENZOYL CHLORIDE/CN
             1
                   PHOSGENE, AZINE WITH P-CHLOROBENZOYL CHLORIDE/CN
E12
=> e3
             1 PHOSGENE/CN
L1
```

=> d 11

L1 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS

RN 75-44-5 REGISTRY

CN Carbonic dichloride (9CI) (CA INDEX NAME)

OTHER CA INDEX NAMES:

CN Phosgene (8CI)

OTHER NAMES:

CN Carbon dichloride oxide

```
Carbon oxychloride
CN
     Carbonyl chloride
CN
     Carbonyl dichloride
CN
CN
CN
      Chloroformyl chloride
CN
      Dichloroformaldehyde
CN
      Phosaen
      3D CONCORD
FS
     c cl2 o
MF
CI
     COM
     STN Files: ADISNEWS, AGRICOLA, ANABSTR, BEILSTEIN*, BIOBUSINESS,
LC
BIOSIS,
        BIOTECHNO, CA, CANCERLIT, CAOLD, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS,
        CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DETHERM*, DIPPR*,
       EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HODOC*, HSDB*, IFICDB, IFIPAT, IFIUDB, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, SPECINFO, TOXCENTER, TULSA, ULIDAT,
        USPAT2, USPATFULL, VTB
          (*File contains numerically searchable property data)
     Other Sources: DSL**, EINECS**, TSCA**
          (**Enter CHEMLIST File for up-to-date regulatory information)
**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**
             5225 REFERENCES IN FILE CA (1967 TO DATE)
              204 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
             5229 REFERENCES IN FILE CAPLUS (1967 TO DATE)
                 1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)
=> e bromine/cn
E1
              1
                     BROMINDIGO R/CN
E2
                     BROMINDIONE/CN
              1
              1 --> BROMINE/CN
E3
E4
              1
                     BROMINE (79,81BR2)/CN
E5
              1
                     BROMINE (79BR81BR)/CN
E6
              1
                     BROMINE (81BR2)/CN
E7
              1
                     BROMINE (81BR81BR)/CN
              1
                     BROMINE (BR2-)/CN
E8
E9
              1
                     BROMINE (BR3)/CN
E10
              1
                     BROMINE (BR4)/CN
E11
              1
                     BROMINE 0-40.0, RUBIDIUM 60.0-100 (ATOMIC)/CN
E12
              1
                     BROMINE 0-7.50, CESIUM 92.5-100 (ATOMIC)/CN
=> e3
L2
              1 BROMINE/CN
=> 12
```

L3

1 BROMINE/CN

LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU, DETHERM*, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2, ENCOMPPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MRCK*, MSDS-OHS, NIOSHTIC, PDLCOM*, PIRA, PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USPAT2, USPATFULL, VTB

(*File contains numerically searchable property data)
Other Sources: DSL**, EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)

Br-Br

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

21604 REFERENCES IN FILE CA (1967 TO DATE)
734 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
21629 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> e iodine/cn E1 1 IODINATED POPPYSEED OIL/CN IODINATED VEGETABLE OIL/CN E2 1 --> IODINE/CN E3 1 IODINE (12712)/CN E4 1 IODINE (12912)/CN E5 E6 E7 E8 F.9 E10 E11 E12 => e3 1 IODINE/CN => d 14ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS T.4 7553-56-2 REGISTRY RN Iodine (8CI, 9CI) (CA INDEX NAME) CN

```
OTHER NAMES:
CN
     Actomar
     Diatomic iodine
CN
CN
     Diiodine
CN
     Eranol
CN
     Iodel FD
     Iodine (127I2)
CN
     Iodine colloidal
CN
     Iodine crystals
CN
     Iodine molecule (I2)
CN
     Iodine sublimed
CN
CN
     Iosan Superdip
CN
     Jodosan
     Molecular iodine
CN
     3D CONCORD
DR
     8012-81-5, 8012-85-9, 8031-47-8, 24503-90-0
MF
     T2
     COM
CT
LC
                  ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS,
     STN Files:
       BIOSIS, BIOTECHNO, CA, CABA, CANCERLIT, CAPLUS, CASREACT, CBNB, CEN,
       CHEMCATS, CHEMINFORMRX, CHEMLIST, CHEMSAFE, CIN, CSCHEM, CSNB, DDFU,
       DETHERM*, DIOGENES, DIPPR*, DRUGU, EMBASE, ENCOMPLIT, ENCOMPLIT2,
      ENCOMPPAT, ENCOMPPAT2, GMELIN*, HSDB*, IFICDB, IFIPAT, IFIUDB, IPA,
       MEDLINE, MRCK*, MSDS-OHS, NAPRALERT, NIOSHTIC, PDLCOM*, PHAR, PIRA,
       PROMT, RTECS*, TOXCENTER, TULSA, ULIDAT, USAN, USPAT2, USPATFULL, VETU,
         (*File contains numerically searchable property data)
     Other Sources:
                     DSL**, EINECS**, TSCA**
         (**Enter CHEMLIST File for up-to-date regulatory information)
```

I-I

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

36914 REFERENCES IN FILE CA (1967 TO DATE)
2358 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
36944 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> file caplus
COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
21.88
22.09

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FILE COVERS 1907 - 12 Jun 2002 VOL 136 ISS 24 FILE LAST UPDATED: 10 Jun 2002 (20020610/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

```
=> 11
           5229 L1
L5
=> 12
          21643 L2
L6
=> 14
L7
          36942 L4
=> 16 \text{ or } 17
          53283 L6 OR L7
=> 15 and 18
             72 L5 AND L8
L9
=> isocyanate
          53030 ISOCYANATE
          18388 ISOCYANATES
          60170 ISOCYANATE
L10
                    (ISOCYANATE OR ISOCYANATES)
=> 19 and 110
               8 L9 AND L10
L11
=> d 111
L11 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2002 ACS
     1999:586877 CAPLUS
AN
DN
     131:261604
TΙ
     Accidental release prevention
ΑU
     Charrington, Peter R.
CS
     Environmental Resources Management, Exton, PA, 19341, USA
     Ceramic Transactions (1998), 87 (Environmental Issues and Waste Management Technologies in the Ceramic and Nuclear Industries III), 89-99
     CODEN: CETREW; ISSN: 1042-1122
PB
     American Ceramic Society
DT
     Journal
LA
     English
```

=> d 111 1-8 ti

L11 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2002 ACS TI Accidental release prevention

- L11 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2002 ACS
- TI The Use of Benchmark Dose Methodology with Acute Inhalation Lethality Data
- L11 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2002 ACS
- TI Management & design of process exhaust systems in an I/C manufacturing environment for emission minimization
- L11 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2002 ACS
- TI French limiting values for occupational exposure to chemicals
- L11 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2002 ACS
- TI Amide derivatives from haloaminotriazines and acid halides
- L11 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2002 ACS
- TI Air contaminants
- L11 ANSWER 7 OF 8 CAPLUS COPYRIGHT 2002 ACS
- TI Performance-oriented packaging standards; changes to classification, hazard communication, packaging and handling requirements based on UN standards and agency initiative
- L11 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2002 ACS
- TI Air contaminants

=> 18 and 110

L12 102 L8 AND L10

=> 18(1)110

L13 15 L8(L)L10

=> color

339480 COLOR

35414 COLORS

L14 358596 COLOR

(COLOR OR COLORS)

=> 113 and 114

L15 0 L13 AND L14

=> d l13 1-15 ti

- L13 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Stereoselective synthesis of 1,3,4-trisubstituted tetrahydro-.beta.-carbolines from indoles based on selective transformations
- L13 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Reaction of AgOCN with NO, NO2, ClNO2, ClNO, and BrNO: Evidence of the Formation of OCN-NO2 and OCN-NO
- L13 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI 3-Bromopropanoyl isocyanate as an acyclic source of the succinimidyl radical
- L13 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Preparing polyoxazolidones with organoantimony iodide catalysts

- L13 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Menthane diisocyanate by addition of isocyanic acid to terpinyl monoisocyanates
- L13 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Determination of rotation and centrifugal distortion constants using quadrupole hyperfine structure: the microwave spectrum of iodine isocyanate, INCO
- L13 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Isocyanates and/or derivatives
- L13 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Syntheses of methyl .alpha.- and .beta.-DL-tetronitrosides (or kijanosides)
- L13 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Isocyanate composition
- L13 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Tetrahydronaphthylurea compounds
- L13 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Iodine isocyanate
- L13 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Iodoisocyanate addition to unsaturated fatty acids and synthesis of their 2-oxazolidones
- L13 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Stereochemistry of aziridine reactions. I. Synthesis of 1-phenyl-7-azabicyclo[4.1.0]heptane and its reactions with trichloroacetic acid and with hydrogen chloride
- L13 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Aromatic imidoisocyanate
- L13 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2002 ACS
- TI Isocyanate-blocked, mercaptan-functional, organic polysulfides

=> logoff hold

COST ÍN U.S. DOLLARS

SINCE FILE

TOTAL

FULL ESTIMATED COST

ENTRY SESSION 12.71 34.80

FULL ESTIMATED COST

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 09:09:40 ON 12 JUN 2002

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1623paz

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * * SESSION RESUMED IN FILE 'CAPLUS' AT 09:44:20 ON 12 JUN 2002 FILE 'CAPLUS' ENTERED AT 09:44:20 ON 12 JUN 2002 COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS) SINCE FILE COST IN U.S. DOLLARS TOTAL ENTRY SESSION 12.71 FULL ESTIMATED COST 34.80 => save temp all ltisocyanate/l L# LIST L1-L15 HAS BEEN SAVED AS 'LTISOCYANATE/L' => d his (FILE 'HOME' ENTERED AT 09:05:07 ON 12 JUN 2002) FILE 'REGISTRY' ENTERED AT 09:05:21 ON 12 JUN 2002 E PHOSGENE/CN L11 E3 E BROMINE/CN 1 E3 T.2 L3 1 L2 E IODINE/CN L41 E3 FILE 'CAPLUS' ENTERED AT 09:06:52 ON 12 JUN 2002 5229 L1 L521643 L2 L6 36942 L4 L7 L853283 L6 OR L7 72 L5 AND L8 L9 L10 60170 ISOCYANATE L118 L9 AND L10 L12102 L8 AND L10 15 L8(L)L10 L13 L14358596 COLOR L15 0 L13 AND L14 SAVE TEMP ALL LTISOCYANATE/L => logoff hold COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 13.50 35.59

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 09:45:15 ON 12 JUN 2002

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1623paz

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * * * SESSION RESUMED IN FILE 'CAPLUS' AT 09:56:24 ON 12 JUN 2002 FILE 'CAPLUS' ENTERED AT 09:56:24 ON 12 JUN 2002

.

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COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
13.50
35.59

=> logoff hold

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
13.50
35.59

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 09:56:42 ON 12 JUN 2002

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1623paz

PASSWORD:

* * * * * RECONNECTED TO STN INTERNATIONAL * * * * * * SESSION RESUMED IN FILE 'CAPLUS' AT 10:45:37 ON 12 JUN 2002 FILE 'CAPLUS' ENTERED AT 10:45:37 ON 12 JUN 2002 COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 13.90 35.99

=> d his

(FILE 'HOME' ENTERED AT 09:05:07 ON 12 JUN 2002)

FILE 'REGISTRY' ENTERED AT 09:05:21 ON 12 JUN 2002

E PHOSGENE/CN

L1 1 E3

E BROMINE/CN

L2 1 E3

L3 1 L2

E IODINE/CN

L4 1 E3

FILE 'CAPLUS' ENTERED AT 09:06:52 ON 12 JUN 2002

L5 5229 L1

L6 21643 L2

L7 36942 L4

L8 53283 L6 OR L7

L9 72 L5 AND L8

L10 60170 ISOCYANATE

L11 8 L9 AND L10

L12 102 L8 AND L10

L13 15 L8(L)L10 L14 358596 COLOR

L15 0 L13 AND L14

SAVE TEMP ALL LTISOCYANATE/L

=> file reg
COST IN U.S. DOLLARS

SINCE FILE TOTAL
ENTRY SESSION
13.90 35.99

FULL ESTIMATED COST

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STRUCTURE FILE UPDATES: 10 JUN 2002 HIGHEST RN 428438-29-3 DICTIONARY FILE UPDATES: 10 JUN 2002 HIGHEST RN 428438-29-3

TSCA INFORMATION NOW CURRENT THROUGH January 7, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details: http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf

=> e diphenylmethanediamine/cn DIPHENYLMETHANEBISMALEIMIDEO-O,O'-DIALLYLBISPHENOL A E1COPOLYM ER/CN E2 DIPHENYLMETHANEBISSTEARYLUREA/CN E3 0 --> DIPHENYLMETHANEDIAMINE/CN E4 DIPHENYLMETHANEDICARBOXYLIC ACID/CN E5 DIPHENYLMETHANEDIETHYLENEUREA/CN 1 DIPHENYLMETHANEDIISOCYANATE, POLYMER WITH ETHYLENE AND E6 PROPY LENE OXIDES AND WITH TOLYLENE DIISOCYANATE/CN DIPHENYLMETHANEDIISOCYANATE-FORMALDEHYDE-MELAMINE-UREA E7 1 COPOL YMER/CN DIPHENYLMETHANEDIISOCYANATE-FORMALDEHYDE-TOLYLENE F.8 1 DIISOCYANA TE-UREA COPOLYMER/CN E9 DIPHENYLMETHANEDIISOCYANATE-GLYCIDOL-POLYFURIT COPOLYMER/CN 1 E10 1 DIPHENYLMETHANEDIISOCYANATE-HEXANETRIOL-PROPYLENE OXIDE COPO E11 DIPHENYLMETHANEDIISOCYANATE-POLY(VINYL ALCOHOL) POLYMER/CN E12 DIPHENYLMETHANEDIISOCYANATE-POLYPROPYLENE GLYCOL TRIGLYCEROL ETHER-TDI POLYMER/CN

=> e diaminophenylmethane/cn

E1 1 DIAMINOPHENOL/CN

E2 1

DIAMINOPHENYLBENZIMIDAZOLE-DIMETHYLBENZIDINE-4-HYDROXYBENZOI

C ACID-6-HYDROXY-2-NAPHTHOIC

ACID-ISOSORBIDE-P-PHENYLENEDIAM

INE-TEREPHTHALIC ACID COPOLYMER/CN

E3 1 --> DIAMINOPHENYLMETHANE/CN

```
DIAMINOPHENYLMETHANE-EPON 828-NADIC METHYL ANHYDRIDE
E4
COPOLYM
                   ER/CN
E5
             1
                   DIAMINOPHENYLPHOSPHINE OXIDE/CN
                   DIAMINOPIMELATE DAP DECARBOXYLASE SEQUENCE HOMOLOG
E6
             1
(SINORHIZ
                   OBIUM MELILOTI GENE LYSA/SMC00723)/CN
                   DIAMINOPIMELATE DECARBOXYLASE/CN
E7
             1
                   DIAMINOPIMELATE DECARBOXYLASE (AGROBACTERIUM TUMEFACIENS
E8
             2
STR
                   AIN C58 GENE LYSA)/CN
E9
             1
                   DIAMINOPIMELATE DECARBOXYLASE (AQUIFEX AEOLICUS GENE
LYSA)/C
                   N
                   DIAMINOPIMELATE DECARBOXYLASE (BACILLUS METHANOLICUS
E10
             1
STRAIN
                   MGA3 CLONE PDM5 GENE LYSA) (E.C. 4.1.1.20)/CN
                   DIAMINOPIMELATE DECARBOXYLASE (BRUCELLA MELITENSIS STRAIN
E11
             1
16
                   M GENE BMEI0084)/CN
E12
                   DIAMINOPIMELATE DECARBOXYLASE (BUCHNERA STRAIN APS GENE
LYSA
                   )/CN
=> e3
L16
             1 DIAMINOPHENYLMETHANE/CN
=> d 116
L16 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2002 ACS
     4463-43-8 REGISTRY
RN
     Methanediamine, 1-phenyl- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
     Toluene-.alpha.,.alpha.-diamine (8CI)
OTHER NAMES:
CN
     Benzylidenediamine
     Diaminophenylmethane
CN
     3D CONCORD
FS
     C7 H10 N2
MF
CI
     COM
LC
                  CA, CAPLUS, CIN, TOXCENTER, USPATFULL
     STN Files:
    Ph
```

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

- 17 REFERENCES IN FILE CA (1967 TO DATE)
- 2 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
- 17 REFERENCES IN FILE CAPLUS (1967 TO DATE)

=> logoff hold COST IN U.S. DOLLARS

H2N-CH-NH2

SINCE FILE TOTAL ENTRY SESSION

SESSION WILL BE HELD FOR 60 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 10:48:04 ON 12 JUN 2002

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssspta1623paz

PASSWORD:

* * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * * * SESSION RESUMED IN FILE 'REGISTRY' AT 10:50:46 ON 12 JUN 2002 FILE 'REGISTRY' ENTERED AT 10:50:46 ON 12 JUN 2002 COPYRIGHT (C) 2002 American Chemical Society (ACS)

COST IN U.S. DOLLARS

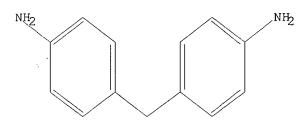
SINCE FILE TOTAL ENTRY SESSION 7.10 43.09

FULL ESTIMATED COST

Uploading 10018636 diphenyl mthane diamine.str

L17 STRUCTURE UPLOADED

=> d 117 L17 HAS NO ANSWERS L17 STR



Structure attributes must be viewed using STN Express query preparation.

=> search 117 exact full FULL SEARCH INITIATED 10:51:20 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 235 TO ITERATE

100.0% PROCESSED 235 ITERATIONS SEARCH TIME: 00.00.01

11 ANSWERS

L18

11 SEA EXA FUL L17

=> d scan

L18 11 ANSWERS REGISTRY COPYRIGHT 2002 ACS IN Benzenamine, 4,4'-methylenebis- (9CI)

MF C13 H14 N2

$$H_2N$$
 CH_2 NH_2

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):18

L18

11 ANSWERS REGISTRY COPYRIGHT 2002 ACS Benzenamine, 4,4'-(methylene-13C)bis- (9CI) IN

MF C13 H14 N2

CI COM

L18 11 ANSWERS REGISTRY COPYRIGHT 2002 ACS

IN Benzen-2,6-d2-amine, 4,4'-methylenebis- (9CI)

C13 H10 D4 N2 MF

$$H_2N$$
 D
 D
 D
 D
 D
 D
 D

L18 11 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN Benzenamine, 4,4'-methylenebis[ar,ar-dichloro- (9CI)

MF C13 H10 Cl4 N2

CI IDS, COM

$$H_2N$$
 NH_2

4 (D1-C1)

L18 11 ANSWERS REGISTRY COPYRIGHT 2002 ACS IN Benzenamine, 4,4'-methylenebis[ar-chloro- (9CI)

C13 H12 C12 N2 MF

IDS, COM CI

2 (D1-C1)

L18 11 ANSWERS

11 ANSWERS REGISTRY COPYRIGHT 2002 ACS Benzenamine, 4,4'-methylenebis-, homopolymer (9CI) IN

MF (C13 H14 N2)x

CI PMS, COM

> CM 1

$$H_2N$$
 CH_2 NH_2

REGISTRY COPYRIGHT 2002 ACS

Benzenamine, 4,4'-(methylene-d2)bis- (9CI)

MF C13 H12 D2 N2

11 ANSWERS REGISTRY COPYRIGHT 2002 ACS L18

Butanoic acid, 4-[[4-[(4-aminophenyl)methyl]phenyl]amino]methylene-4-oxo-IN (9CI)

MF C18 H18 N2 O3

CI IDS

> CM 1

CM

$$^{\text{CH}_2}_{\parallel}$$
 $_{\text{HO}_2\text{C}-\text{ C- CH}_2-\text{ CO}_2\text{H}}$

L18 11 ANSWERS REGISTRY COPYRIGHT 2002 ACS
IN Benzenamine, 4,4'-methylenebis-, labeled with deuterium (9CI) MF C13 H10 D4 N2

REGISTRY COPYRIGHT 2002 ACS L18 11 ANSWERS

Methyl, bis(4-aminophenyl) - (9CI) IN

C13 H13 N2 MF

L18 11 ANSWERS REGISTRY COPYRIGHT 2002 ACS

IN Methylium, bis(p-aminophenyl) - (8CI)

MF C13 H13 N2

ALL ANSWERS HAVE BEEN SCANNED

=> file caplus COST IN U.S. DOLLARS

.. -- .

SINCE FILE TOTAL ENTRY SESSION FILE 'CAPLUS' ENTERED AT 10:51:59 ON 12 JUN 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

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ä. . .

FILE COVERS 1907 - 12 Jun 2002 VOL 136 ISS 24 FILE LAST UPDATED: 10 Jun 2002 (20020610/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

CAS roles have been modified effective December 16, 2001. Please check your SDI profiles to see if they need to be revised. For information on CAS roles, enter HELP ROLES at an arrow prompt or use the CAS Roles thesaurus (/RL field) in this file.

=> 118 L19 3948 L18

=> d his

L5

(FILE 'HOME' ENTERED AT 09:05:07 ON 12 JUN 2002)

FILE 'REGISTRY' ENTERED AT 09:05:21 ON 12 JUN 2002

E PHOSGENE/CN
L1 1 E3
E BROMINE/CN
L2 1 E3
L3 1 L2
E IODINE/CN
L4 1 E3

5229 L1

FILE 'CAPLUS' ENTERED AT 09:06:52 ON 12 JUN 2002

L6 21643 L2 L7 36942 L4 1.8 53283 L6 OR L7 L9 72 L5 AND L8 L10 60170 ISOCYANATE L118 L9 AND L10 L12 102 L8 AND L10 L13 15 L8(L)L10 L14358596 COLOR L15 0 L13 AND L14

SAVE TEMP ALL LTISOCYANATE/L

FILE 'REGISTRY' ENTERED AT 10:45:52 ON 12 JUN 2002

E DIPHENYLMETHANEDIAMINE/CN E DIAMINOPHENYLMETHANE/CN

L16 1 E3

L17 STRUCTURE UPLOADED

L18 11 SEARCH L17 EXACT FULL

FILE 'CAPLUS' ENTERED AT 10:51:59 ON 12 JUN 2002

L19 3948 L18

=> 119 and 15

L20 45 L19 AND L5

=> 110 and 120

L21 31 L10 AND L20

=> d 121 21-31 ti

- L21 ANSWER 21 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Isocyanate compositions
- L21 ANSWER 22 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI N-Aryltetramethylguanidines, living catalysts for polyurethane foams
- L21 ANSWER 23 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Heats of the phosgenation of aniline, 2,4-tolylenediamine, and 4,4'-diphenylmethanediamine
- L21 ANSWER 24 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Polyhalogenated polyisocyanates
- L21 ANSWER 25 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI 4,4'-Methylenebis(cyclohexylisocyanate)
- L21 ANSWER 26 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI N-Trimethylsilyl derivatives of some industrial diamines and their phosgenation
- L21 ANSWER 27 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Continuous production of organic isocyanates
- L21 ANSWER 28 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Organic polyisocyanate components
- L21 ANSWER 29 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Organic isocyanates
- L21 ANSWER 30 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Isocyanates
- L21 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Continuous manufacture of organic isocyanates

=> save temp 121 isocyanhits/a
ANSWER SET L21 HAS BEEN SAVED AS 'ISOCYANHITS/A'

=> d 121 21,23,27,29,30,31 ti fbib abs

```
L21 ANSWER 21 OF 31 CAPLUS COPYRIGHT 2002 ACS
    Isocyanate compositions
ΤI
    1979:55488 CAPLUS
AN
    90:55488
DN
TI
    Isocvanate compositions
    Kozlowski, Kazimierz; Szczepkowski, Leonard; Papinski, Jozef; Hernacki,
IN
    Stanislaw; Szulc, Ewa; Jaglowska, Jadwiga
    Akademia Techniczno-Rolnicza, Bydgoszcz, Pol.
PA
    Pol., 2 pp.
SO
    CODEN: POXXA7
    Patent .
DT
    Polish
LA
FAN.CNT 1
    PATENT NO.
                    KIND DATE
                                         APPLICATION NO. DATE
     _____
                                          _____
                     Р
                                        PL 1974-168589 19740204
                           19760630
PΙ
    PL 87064
    Liq. isocyanate compns. were prepd. by phosgenation of mixts. of
AΒ
     4,4'-diaminodiphenyl sulfone (I) [80-08-0] or its hydrochloride (1-100
    wt.%) with diaminodiphenylmethane [101-77-9] or
    polymethylenepolyphenylenepolyamine (II) or their hydrochlorides in org.
    solvent, and removal of COC12 by desorption and removal of the solvent by
    distn. Thus, to a reactor contg. o-C6H4Cl2 was added simultaneously
COC12
    and a I-II mixt. (30:70, resp.). The temp. in the reactor was 90.degree.
    and the temp. of the I-II mixt. was 50.degree.. Upon completion of the
    addn. of the mixt. the contents of the reactor were kept at 165.degree.
    for 2.5 h while addnl. COCl2 was added. Desorption of COCl2 by passing a
    stream of N and distn. of o-C6H4Cl2 under diminished pressure gave a
    compn. [68880-54-6] of NCO group content 30.1%, Cl content 0.31% and
    viscosity 520 cP (at 25.degree.).
L21 ANSWER 23 OF 31 CAPLUS COPYRIGHT 2002 ACS
    Heats of the phosgenation of aniline, 2,4-tolylenediamine, and
TI
    4,4'-diphenylmethanediamine
    1976:16584 CAPLUS
ΑN
    84:16584
DN
    Heats of the phosgenation of aniline, 2,4-tolylenediamine, and
TТ
    4,4'-diphenylmethanediamine
    Konstantinov, I. I.; Selivanov, V. D.; Melent'eva, T. I.
ΑU
CS
    Zh. Prikl. Khim. (Leningrad) (1975), 48(9), 2099-100
SO
    CODEN: ZPKHAB
DT
    Journal
LΑ
    Russian
    Isocyanate formation from the title amines and COCl2 is
    exothermic; the heats of reaction are calcd.
    ANSWER 27 OF 31 CAPLUS COPYRIGHT 2002 ACS
L21
    Continuous production of organic isocyanates
TТ
    1974:570204 CAPLUS
AN
    81:170204
DN
    Continuous production of organic isocyanates
ΤI
    Artem'ev, A. A.; Strepikheev, Yu. A.; Shmidt, Ya. A.; Babkin, B. M.
ΙN
PA
    State Scientific Research Institute of the Nitrogen Industry
SO
    Ger., 6 pp.
    CODEN: GWXXAW
    Patent
    German
LA
FAN.CNT 1
```

```
Α
    DE 1768439
                                        DE 1967-1768439 19680514
                          19711118
PΤ
                          19740425
     DE 1768439
                    В2
                    C3 19750102
    DE 1768439
    Carbamyl chloride formation and polymn. in the title process are
AΒ
prevented
    by adding a 2.5-5.5 fold excess of phosgene [75-44-5] heated
     above its crit. temp. (i.e. to 185-235.deq.) to a soln. or suspension of
    amine at 165-225.\deg, followed by reaction at 180-250.\deg, 20-150 atm.
    Thus, a soln. of 205 g hexamethylenediamine [124-09-4] in 2000 ml PhCl is
    heated to 216-19.deq. and passed over 1 hr into a pipe reactor heated to
    233-5.deg./60-2 atm together with 1680 g COC12 preheated to 220-4.deg. to
    give 89% hexamethylene diisocyanate [822-06-0].
L21 ANSWER 29 OF 31 CAPLUS COPYRIGHT 2002 ACS
TI
    Organic isocyanates
    1973:442141 CAPLUS
ΑN
DN
    79:42141
    Organic isocyanates
ΤI
    Gee, Herbert Leonard
IN
PA
    Quimco G.m.b.H.
SO
    Ger. Offen., 20 pp.
    CODEN: GWXXBX
ידים
    Patent
LΑ
    German
FAN.CNT 1
                                        APPLICATION NO. DATE
    PATENT NO.
                   KIND DATE
    _____
                                                        _____
    DE 2252068
                    A1 19730510
                                        DE 1972-2252068 19721024
PI
                                        GB 1971-49458 19711025
    BE 790461
                    A1 19730215
                                        BE 1972-123405 19721023
                                        GB 1971-49458 19711025
                                        FR 1972-37432
    FR 2158909
                    A5 19730615
                                                       19721023
                                        GB 1971-49458
                                                        19711025
    ES 407916
                    A1 19751101
                                        ES 1972-407916 19721024
                                        GB 1971-49458
                                                        19711025
    JP 48049721 A2 19730713
                                        JP 1972-107032 19721025
                                         GB 1971-49458
                                                        19711025
    Isocyanates were prepd. by heating an amine with COC12 at
AΒ
    148-50.degree./3 atm in the presence of an excess of isocyanate.
    Thus, 1 kg PhNH2 was added to 10 kg PhNCO contg. COC12 and HCl at
    80.degree./3 atm; 8 kg recovered HCl-contg. COCl2 soln. was added and the
    mixt. was heated to 148-50.degree. to give, after 1 hr, 96% PhNCO.
L21 ANSWER 30 OF 31 CAPLUS COPYRIGHT 2002 ACS
TI
    Isocyanates
AN
    1973:431672 CAPLUS
DN
    79:31672
TТ
    Edmondsen, John Neville; Hulse, Rae; Kerrigan, Vincent
IN
    Imperial Chemical Industries Ltd.
PA
    Ger. Offen., 17 pp.
SO
    CODEN: GWXXBX
DT
    Patent
    German
FAN.CNT 1
    PATENT NO.
                   KIND DATE
                                       APPLICATION NO. DATE
```

APPLICATION NO. DATE

PATENT NO. KIND DATE

PI	DE	2249459	A1	19730419		1972-2249459 1971-47795	19721009 19711014
	ΙT	967968	Α	19740311	IT	1972-29815	19720928
		7010001	7	10700417		1971-47795	19711014
	ΝГ	7213291	A	19730417		1972-13291	19721002
						1971-47795	19711014
	ΒE	789809	A1	19730406	BE	1972-122871	19721006
					GΒ	1971-47795	19711014
	FR	2157485	A5	19730601	FŔ	1972-36382	19721013
					GB	1971-47795	19711014
	JΡ	48048419	A2	19730709	JΡ	1972-103161	19721014
					GB	1971-47795	19711014

AB Isocyanates were prepd. by treating a mixt. of (2) amines with COCl2. Thus, a mixt. of cyclohexylamine and a polyphenylamine, prepd. by reacting HCHO and PhNH2, was treated with COCl2 to give cyclohexyl isocyanate and polyphenyl polyisocyanate; a mixt. of n-C8H17NH2 and n-C18H37NH2 gave n-C8H17NCO and n-C18H37NCO.

```
L21 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2002 ACS
```

II Continuous manufacture of organic isocyanates

AN 1973:3936 CAPLUS

DN 78:3936

TI Continuous manufacture of organic isocyanates

IN Horn, Peter; Schuster, Ludwig

PA Badische Anilin- und Soda-Fabrik A.-G.

SO Ger. Offen., 14 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2112181	Α	19721005	DE 1971-2112181	19710313
	FR 2129554	A 5	19721027	FR 1972-8236	19720309
				DE 1971-2112181	19710313
	BE 780513	A1	19720911	BE 1972-114942	19720310
				DE 1971-2112181	19710313

AB MeC6H3(NCO)2-2,4 (I), (p-OCNC6H4)2CH2, and mixts. of 4,4'-, 4,2'-, and 2,2'-diisocyanatodiphenylmethanes with polyphenylpolymethylene polyisocyanates were continuously prepd. by reaction of liq. polyamines with COCl2 gas at 115 in packed columns with recycling of unreacted COCl2

and parts of the liq. reaction mixt. Thus, COC12 37,000, N 6000, and 8% MeC6H3(NH2)2-2,4 in C6H5Cl 1040 ml/hr were passed at 115 through a ball-filled column and the product sepd. into a gaseous and a liq. oduct

flow; 185,000 ml of the latter and 5000 ml of N-contg. COCl2 were recycled. The separator yielded 1040 ml of reaction product/hr, which, on

removal of C6H5Cl by distn., gave 92% I.

=> d 121 10-20 ti

L21 ANSWER 10 OF 31 CAPLUS COPYRIGHT 2002 ACS

TI Performance-oriented packaging standards; changes to classification, hazard communication, packaging and handling requirements based on UN standards and agency initiative

- L21 ANSWER 11 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Methylene-bridged polyarylamine and its preparation
- L21 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Alkenylated diphenyl diisocyanates for use in preparing polyurethane-urea systems
- L21 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Bis(trichloromethyl) carbonate as an alternative reagent for phosgene
- L21 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Residue-free phosgenation of aromatic amines
- L21 ANSWER 15 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Continuous production of organic mono- and/or polyisocyanates
- L21 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Two-step continuous manufacture of aromatic isocyanates
- L21 ANSWER 17 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Continuous preparation of organic isocyanates
- L21 ANSWER 18 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Organic isocyanates
- L21 ANSWER 19 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Isocyanuric acid esters
- L21 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Organic isocyanates by phosgenation
- => d 121 12,14,15-18,20 ti fbib abs
- L21 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Alkenylated diphenyl diisocyanates for use in preparing polyurethane-urea systems
- AN 1989:615069 CAPLUS
- DN 111:215069
- TI Alkenylated diphenyl diisocyanates for use in preparing polyurethane-urea systems
- IN Burgoyne, William Franklin, Jr.; Dixon, Dale David
- PA Air Products and Chemicals, Inc., USA
- SO Eur. Pat. Appl., 9 pp. CODEN: EPXXDW
- DT Patent
- LA English
- FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 311901	A2	19890419	EP 1988-116545	19881006
EP 311901	A3	19900829		
R: DE, F	R, GB			
			US 1987-108408	19871014
US 4845283	A	19890704	US 1987-108408	19871014
JP 01139618	A2	19890601	JP 1988-259266	19881014
			US 1987-108408	19871014
	EP 311901 EP 311901 R: DE, FI	EP 311901 A2 EP 311901 A3 R: DE, FR, GB US 4845283 A	EP 311901 A2 19890419 EP 311901 A3 19900829 R: DE, FR, GB	EP 311901 A2 19890419 EP 1988-116545 EP 311901 A3 19900829 R: DE, FR, GB US 1987-108408 US 4845283 A 19890704 US 1987-108408 JP 01139618 A2 19890601 JP 1988-259266

OS MARPAT 111:215069

GΙ

OCN
$$R^{1-C} = R^{3} = R^{1-C} = R^{2}$$

$$R^{4-C} = R^{5} = R^{4-C} = R^{5}$$

AB The title compds. I (R1-5 = H, C1-3 alkyl, Ph, halo, alkoxy; R2R4, R2R5 = C2-5 alkylene; X = CH2, alkylene, O, S, etc.; n = 0-1; Z = 0-1), having .gtoreq.1 alkenyl group ortho to an isocyanate group, are prepd. for use in polyurethane-urea systems contg. pendant crosslinkable unsatd. groups. Heating 1.64 mol 4,4'-methylenedianiline with 1.23 mol dicyclopentadiene in 2.78 mol pentane in the presence of 20 g zeolite (13:87 Al2O3-SiO2) at 205.degree. for 22 h gave 2-(2-cyclopenten-1-yl)-4,4'-methylenedianiline which was phosgenated in dioxane at 57.degree.

and

heated at 85.degree. to give 2-(2-cyclopenten-1-yl)-4,4'- diisocyanatodiphenylmethane (II). II and HO(CH2CH2O)3H were copolymd. to give a polyurethane which was cured in the presence of Co naphthenate.

- L21 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Residue-free phosgenation of aromatic amines
- AN 1986:207865 CAPLUS
- DN 104:207865
- TI Residue-free phosgenation of aromatic amines
- IN Pohl, Siegmund; Guettes, Bernd; Romanowski, Helmut; Grossmann, Hans Juergen; Scharr, Volker; Hendel, Harald; Hendreich, Regina; Gassan, Michael; Marquardt, Renate; et al.
- PA VEB Synthesewerk Schwarzheide, Ger. Dem. Rep.
- SO Ger. (East), 3 pp. CODEN: GEXXA8
- DT Patent
- LA German

FAN.CNT 1

•		-					
PATENT NO.			KIND DATE		APPLICATION NO.	DATE	
ł	PI DI	227698	A1	19850925	DD 1984-268213	19841010	
	DI	227698	B1	19870819			

- AB In the title process, a mixt. of arom. amines (viscosity <450 mPa-s) contg. <4.0% biquinoline or derivs. and <40 ppm Cl [primarily as NaCl or FeCl3 complexes of 4,4'-methylenedianiline (I)] is phosgenated. Thus, a I-polyamine mixt. (viscosity 315 mPa-s at 70.degree.) contg. 2.2% biquinoline and 16 ppm Cl was phosgenated in PhCl to give an MDI-polyisocyanate mixt. contg. 0.45% hydrolyzable Cl and 0.06% acidity (viscosity 180 mPa-s at 25.degree.) and leaving essentially no residue on distn.
- L21 ANSWER 15 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Continuous production of organic mono- and/or polyisocyanates
- AN 1986:19945 CAPLUS
- DN 104:19945
- TI Continuous production of organic mono- and/or polyisocyanates

Ohlinger, Rainer; Schnez, Harald; Pfannenstiel, Ludwig; Blumenberg, IN Bernd: Raabe, Hans Joachim PA BASF A.-G. , Fed. Rep. Ger. Ger. Offen., 15 pp. SO CODEN: GWXXBX DTPatent LΑ German FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ____ _____ _____ _____ PΙ DE 3403204 Α1 19850814 DE 1984-3403204 19840131 EP 150435 A2 19850807 EP 1984-115708 19841218 EP 150435 **A3** 19850821 EP 150435 В1 19880302 R: BE, DE, FR, GB, IT, NL DE 1984-3403204 19840131 US 4581174 Α 19860408 US 1985-695196 19850125 DE 1984-3403204 19840131 CA 1234825 Α1 19880405 CA 1985-473192 19850130 DE 1984-3403204 19840131 In the continuous prepn. of isocyanates by phosgenation of AΒ amines in org. solvents under pressure at high temps. with partial recirculation of the reaction mixt., salta and byproduct formation are prevented by keeping the HCl content of the mixt. before amine addn. at <0.5% and the mol ratio of COCl2 to NH2 groups at 12-200:1. Thus, a methylenedianiline-polymethylenepolyphenylenepolyamine mixt. was phosgenated in PhCl at 130.degree./14.5 bar using a 30% amine soln. added at 500 kg/h with COCl2 addn. at 150 kg/h. The HCl content of the mixt. before amine addn. was 0.4%. The reaction mixt. contained PhCl 41.4, isocyanates 19.5, COC12 38.6, and HCl 0.4%. The yield of isocyanates was 100%. L21 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2002 ACS ΤI Two-step continuous manufacture of aromatic isocyanates ΑN 1985:25208 CAPLUS 102:25208 DN ΤI Two-step continuous manufacture of aromatic isocyanates PA Mitsui Toatsu Chemicals, Inc., Japan SO Jpn. Kokai Tokkyo Koho, 8 pp. CODEN: JKXXAF DТ Patent LΑ Japanese FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE _____ -----A2 JP 1983-13758 JP 59141552 19840814 PΙ 19830201 Isocvanates are prepd. by dispersing amines in inert org. AB solvents, treating the amines and amine-HCl salts with phosgene at 60-100.degree. and 3-10 kg/cm2 (gage) in the 1st step, transferring the reaction mixt. to a 2nd reactor at 120-170.degree. and 3-10 kg/cm2 (gage) to complete the reaction of the amine-HCl salts and the decompn. of carbamoyl chlorides, and recycling some of the waste gas to the 1st reactor. Thus, phosgene contg. 5% HCl 42.2, o-C6H4Cl2 contg. 25% tolylenediamine [25376-45-8] 44, and o-C6H4Cl2 29.7 kg/h were fed to a reactor at 90.degree., allowed to react at retention liq. amt. .apprx.49.5

kg and retention time 0.6 h, overflowed to a heater at 150.degree., allowed to react in the 2nd reactor at retention liq. amt. .apprx.81 kg

and retention time 1 h, discharged at 75 kg/h, and distd. to give a 19.6% TDI [26471-62-5]. L21 ANSWER 17 OF 31 CAPLUS COPYRIGHT 2002 ACS Continuous preparation of organic isocyanates ΤI AN 1983:90072 CAPLUS 98:90072 DN Continuous preparation of organic isocyanates TI Yamamoto, Ryuichi; Takagi, Akinobu; Kataita, Masafumi; Obata, Kenji; IN Mori, Mitsui Toatsu Chemicals, Inc., Japan PΑ Fr. Demande, 36 pp. SO CODEN: FRXXBL DTPatent French LA FAN.CNT 1 ADDITORMI

	PATENT NO.		KIND	DATE		PLICATION NO.	DATE	
		2503146 2503146	A1 B1	19821008 19851227		1982-6087	19820407	
					JP	1981-51216	19810407	
					JP	1981-183734	19811118	
	JP	57165358	A2	19821012	JP	1981-51216	19810407	
	JP	01024783	В4	19890515				
	JP	59122451	A2	19840714	JP	1981-183734	19811118	
	JP	61026987	B4	19860623				
	IN	156928	Α	19851207	IN	1982-CA336	19820325	
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	US	4422976	Α	19831227	US	1982-364894	19820402	
					JP	1981-51216	19810407	
					JP	1981-183734	19811118	
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	DE	3212510	C3	19900308				
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						1981-183734	19811118	
	BR	8201971	А	19830308		1982-1971	19820406	
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						1981-183734	19811118	
	GB	2097789	Α	19821110	GB	1982-10299	19820407	
	GB	2097789	В2	19850327				
					JP	1981-51216	19810407	

AB In the title process, dispersed amines are condensed with COC12 [75-44-5] at 60-100.degree./.ltoreq.9.8 bar for times sufficient to convert all amine hydrochlorides to carbamoyl chlorides and decomp. the latter. Thus, COC12 24.3, a 17% o-C6H4C12 soln. of m-toluenediamine [95-80-7] 44, and a recycle stream (5% carbamyl chloride, 5% TDI [26471-62-5], and excess COC12 in o-C6H4C12) 8200 Kg/h were mixed in a reactor with residence time 1.4 h at 80.degree./4.9 bar and fed to a 2nd reactor (residence time 1.5 h) at 150.degree./4.9 bar with 6 kg COC12/h

give a soln. contg. 10.5% TDI and 0.5% nonvolatile residue, compared with 9.8 and 1.1, resp., when the 1st reactor was at 140.degree./0.8 bar.

JP 1981-183734

19811118

- L21 ANSWER 18 OF 31 CAPLUS COPYRIGHT 2002 ACS
- TI Organic isocyanates

to

AN 1982:424350 CAPLUS

ΤI Organic isocvanates Mitsui Toatsu Chemicals, Inc., Japan PA Jpn. Kokai Tokkyo Koho, 5 pp. CODEN: JKXXAF DT Patent LA Japanese FAN.CNT 1 KIND DATE PATENT NO. APPLICATION NO. DATE A2 19820320 JP 1980-124708 19800910 ----______ JP 57048954 PΙ AΒ During the continuous manuf. of org. isocyanates, org. primary amines are fed to a circulating line contg. solns. of COC12 and isocyanate immediately ahead of a static or propeller line mixer and passed through the line mixer in <1 s. Thus, 46 kg/h 15% soln. of tolylenediamine [25376-45-8] in o-Cl2C6H4 and 8200 kg/h soln. of 15% TDI [26471-62-5] and excess COC12 were passed through a static line mixer in .apprx.0.2 s and transferred to a storage tank at 140.degree. to discharge HCl and recover the solvent and COCl2. A part of the reaction liq. was recovered as a product continuously and the major part was returned to the mixer reactor, and the rest was mixed with 11 kg/h solvent and 22.3 kg/h COC12 (100% excess). The product was heated 30 min at 160.degree. and distd. to give a compn. of 16.1% TDI and 1.05% nonvolatile residues. L21 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2002 ACS Organic isocyanates by phosgenation 1979:524379 CAPLUS ΑN DN 91:124379 TIOrganic isocyanates by phosgenation IN Yamamoto, Ryuichi; Yamamoto, Kosuke; Nagata, Teruyuki; Obata, Kenji PA Mitsui Toatsu Chemicals, Inc., Japan SO Jpn. Kokai Tokkyo Koho, 6 pp. CODEN: JKXXAF DT Patent Japanese LΑ FAN.CNT 2 PATENT NO. KIND DATE APPLICATION NO. DATE ______ ______ PΙ JP 54070220 A2 19790605 JP 1977-134692 19771111 JP 57015827 В4 19820401 US 1978-955266 US 4193932 Α 19800318 19781027 JP 1977-134692 19771111 DE 2847243 **A**1 19790517 DE 1978-2847243 19781031 DE 2847243 C2 19830120 JP 1977-134692 19771111 RO 77280 P 19810817 RO 1978-95634 19781110 JP 1977-134692 19771111 HU 21667 HU 1978-MI641 0 19820128 19781110 HU 179251 В 19820928 JP 1977-134692 19771111 PATENT FAMILY INFORMATION: FAN 1979:440090 APPLICATION NO. PATENT NO. KIND DATE DATE _____ DE 2847243 PΙ A1 19790517 DE 1978-2847243 19781031 DE 2847243 C2 19830120

JP 1977-134692

19771111

DN

97:24350

JP 54070220 A2 19790605 JP 1977-134692 19771111 JP 57015827 B4 19820401

AB After phosgenation of diaminodiphenylmethane or tolylenediamine in an inert solvent, the mixt. is degassed with gaseous HCl instead of N to prevent discoloration and reduce hydrolyzable chlorides. Thus, PhNH2-H2CO-HCl condensate contg. 55% diaminodiphenylmethane was dild.

with

o-Cl2C6H4 to 7% concn., treated with COCl2 [75-44-5] at 20-150.degree., and degassed with 300 mL/min HCl at 170.degree. for 2 h. Evapn. gave a polyisocyanate compn. contg. 31.0% NCO and 0.161% hydrolyzable chlorides, vs. 30.8 and 0.180%, resp., with N instead of HCl.

=> logoff hold COST IN U.S. DOLLARS

FULL ESTIMATED COST

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE TOTAL
ENTRY SESSION
CA SUBSCRIBER PRICE

-8.05
-8.05

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LOGINID: ssspta1623paz

PASSWORD:

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COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 50.06 140.91 DISCOUNT AMOUNTS (FOR OUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE -8.05 -8.05

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(BROMINE OR BROMINES)

1192366 CONTENT 281138 CONTENTS 1360324 CONTENT

(CONTENT OR CONTENTS)

L22 345 BROMINE CONTENT

(BROMINE (W) CONTENT)

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L25 91755 ?ISOCYANATE => 124 and 125 L26 1276 L24 AND L25 => 114 and 126

=> ?isocyanate

L27 45 L14 AND L26

=> d 127 35-45 ti

L27 ANSWER 35 OF 45 CAPLUS COPYRIGHT 2002 ACS

TI Heat-developable photosensitive material

L27 ANSWER 36 OF 45 CAPLUS COPYRIGHT 2002 ACS

TI Methine dyes and their use

L27 ANSWER 37 OF 45 CAPLUS COPYRIGHT 2002 ACS

TI Photopolymerizable mixture

L27 ANSWER 38 OF 45 CAPLUS COPYRIGHT 2002 ACS

TI Chemically joined phase separated thermoplastic graft copolymers

L27 ANSWER 39 OF 45 CAPLUS COPYRIGHT 2002 ACS

N-(o-Hydroxyphenyl)-N'-phenylureas for combating harmful microorganisms outside the textile industry

L27 ANSWER 40 OF 45 CAPLUS COPYRIGHT 2002 ACS

TI Halogenated polyester compositions

L27 ANSWER 41 OF 45 CAPLUS COPYRIGHT 2002 ACS

TI Diorgano phosphorylated polyols and flame-retardant polyurethane foams therefrom

L27 ANSWER 42 OF 45 CAPLUS COPYRIGHT 2002 ACS

TI Improving the color stability of expanded polyurethans

L27 ANSWER 43 OF 45 CAPLUS COPYRIGHT 2002 ACS

TI Organic isocyanates. III. Reaction of aromatic isocyanates with halogens

L27 ANSWER 44 OF 45 CAPLUS COPYRIGHT 2002 ACS

TI Remarks on the communication of R. Lesser, E. Kranepuhl and G. Gad on the constitution of naphthalene and its derivatives

L27 ANSWER 45 OF 45 CAPLUS COPYRIGHT 2002 ACS

TI Nitrones and nitrenes

=> 125(1)114

L28 1573 L25(L)L14

=> 128(10124

MISSING OPERATOR 'L28(L0L24'

The search profile that was entered contains terms or nested terms that are not separated by a logical operator.

=> 128(1)124

L29 17 L28(L)L24

=> d 129 1-17 ti

L29 ANSWER 1 OF 17 CAPLUS COPYRIGHT 2002 ACS

TI Production of black thermal copying sheet

L29 ANSWER 2 OF 17 CAPLUS COPYRIGHT 2002 ACS

TI Monohydric alcohol derived urethanes and their use in cosmetic

formulations

- L29 ANSWER 3 OF 17 CAPLUS COPYRIGHT 2002 ACS
- TI Biodegradable ink compositions contg. no halogen-organic solvents
- L29 ANSWER 4 OF 17 CAPLUS COPYRIGHT 2002 ACS
- TI colored positive-working photosensitive recording material
- L29 ANSWER 5 OF 17 CAPLUS COPYRIGHT 2002 ACS
- TI Thermal-transfer printing
- L29 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2002 ACS
- TI Microencapsulated toners containing photocurable resins fixing agent
- L29 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2002 ACS
- TI Electrochromic or photochromic resin composition
- L29 ANSWER 8 OF 17 CAPLUS COPYRIGHT 2002 ACS
- TI Cyan dye-releasing compounds for use in the production of diffusion-transfer color images
- L29 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2002 ACS
- TI Rigid polyurethane foam molding
- L29 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2002 ACS
- TI Polyurethane foam moldings
- L29 ANSWER 11 OF 17 CAPLUS COPYRIGHT 2002 ACS
- TI Heat-developable photosensitive material
- L29 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2002 ACS
- TI Photopolymerizable mixture
- L29 ANSWER 13 OF 17 CAPLUS COPYRIGHT 2002 ACS
- TI N-(o-Hydroxyphenyl)-N'-phenylureas for combating harmful microorganisms outside the textile industry
- L29 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2002 ACS
- TI Halogenated polyester compositions
- L29 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2002 ACS
- TI Improving the color stability of expanded polyurethans
- L29 ANSWER 16 OF 17 CAPLUS COPYRIGHT 2002 ACS
- TI Remarks on the communication of R. Lesser, E. Kranepuhl and G. Gad on the constitution of naphthalene and its derivatives
- L29 ANSWER 17 OF 17 CAPLUS COPYRIGHT 2002 ACS
- TI Nitrones and nitrenes

=> d 129 15 ti fbib abs

- L29 ANSWER 15 OF 17 CAPLUS COPYRIGHT 2002 ACS
- TI Improving the color stability of expanded polyurethans
- AN 1967:46926 CAPLUS

- DN 66:46926
- TI Improving the color stability of expanded polyurethans
- PA Imperial Chemical Industries Ltd.

SO Belg., 20 pp. CODEN: BEXXAL

DT Patent

LA French

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

PI BE 671112 19660419

GB 19641020

AB Expanded polyurethans prepd. from an org. polyisocyanate, a polyester with OH groups, a foaming agent, an org. halogen compd., a teritary ester of H3PO4, and a phenolic antioxidant had improved

color stability. Thus, a polyurethan foam that became brown after formation was prepd. from 100 parts poly(diethylene adipate) modified by pentaerythritol, 62 parts tolylene diisocyanate (65:35 mixt. of 2,4- and 2,6-isomers), 5 parts water, 1 part of the condensation product of ethylene oxide with octylphenol, 0.4 part of the ethylene oxide-ricinoleic acid condensate, 0.1 part Na polypropylene glycol sulfate, 0.65 part N,N-dimethyl cyclohexylamine, and 10 parts tris(.beta.-chloroethyl) phosphate. When 1 part triphenyl phosphite was added to the mixt., the foamed polyurethan produced showed only a slight color degradation. The addn. of 1 part (PhO)3P and 0.5 part 2-(2-methyl-cyclohexyl)-4,6-dimethylphenol improved the color stability slightly more. Similar improvements in color stability were obtained by adding diisodecylpentaerythrityl diphosphite and tert-butylcatechol, together or in appropriate combinations with the H3PO4 esters and phenolic compds. mentioned above.

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PASSWORD:

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ENTRY SESSION
FULL ESTIMATED COST 70.76 161.61

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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

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L5
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L9
L10
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L11
            8 L9 AND L10
L12
           102 L8 AND L10
L13
             15 L8(L)L10
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             0 L13 AND L14
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L24
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L25
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L26
           45 L14 AND L26
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L28
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           17 L28(L)L24
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        20083 GRADES
       104445 GRADE
                (GRADE OR GRADES)
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             4 TECHNICALS
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         74763 TECH
         95414 TECHNICAL
                 (TECHNICAL OR TECH)
         88695 GRADE
         20083 GRADES
        104445 GRADE
                 (GRADE OR GRADES)
L31
          4387 TECHNICAL GRADE
                 (TECHNICAL (W) GRADE)
=> 15 and 131
            1 L5 AND L31
L32
=> d 132 ti
L32 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
     Basic impurities in technical thionyl chloride
=> d 132 ti fbib abs
L32 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS
    Basic impurities in technical thionyl chloride
ΤI
AN
     1992:197045 CAPLUS
DN
     116:197045
TI
     Basic impurities in technical thionyl chloride
     Smirnov, V. I.; Milova, N. M.; Zhalyaleva, E. S.; Leont'eva, T. A.
AU
CS
     Khim. Prom-st. (Moscow) (1992), (1), 15-16
SO
    CODEN: KPRMAW; ISSN: 0023-110X
DT
     Journal
LA
     Russian
AB
     Gas chromatog. and spectral anal. were used to det. the basic impurities
     in tech. grade SOC12 obtained by the reaction of COC12
    with SO2 on activated C at 150-250.degree.. The tech.
     grade SOC12 is treated with S for the conversion of SC12 into
     S2Cl2 and removal of the latter by fractionation at 137.degree., followed
    by blowing with dry N2 and sepn. of SOC12 from the reaction mixt. by
    distn. The final product contained SOC12 97.9, SO2 0.8, COC12 0.7,
SO2C12
     0.3, HCl 0.1, CCl4 0.05, S2Cl2 0.05, SCl2 0.05, and Fe 0.0003%.
=> technical
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         27524 TECHNICAL
                 (TECHNICAL OR TECHNICALS)
         74763 TECH
L33
         95414 TECHNICAL
                 (TECHNICAL OR TECH)
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ľ,

=> 15(1)133

L34 0 L5(L)L33

=> 15 and 133

L35 8 L5 AND L33

=> bromine

38617 BROMINE

132 BROMINES

L36 38698 BROMINE

(BROMINE OR BROMINES)

=> 135 and 136

L37 0 L35 AND L36

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COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST 84.68 175.53

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL

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CA SUBSCRIBER PRICE -9.29 -9.29

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